AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of mapping a color specification to colorant amounts when a projected region of color space is to be produced by a selection of colorants from a set of colorants including a first colorant, a second colorant and a third colorant, the second colorant being of similar hue with respect to the first colorant, the method comprising:

designating a first portion of the region to be produced by a first subset of colorants consisting of two of the first, second and third colorants;

designating a second portion of the region to be produced by a second subset of the first, second and third colorants that is different from the first subset; and

mapping the color specification into colorant amounts based on the designated portions.

2. (Previously Presented) The method of mapping a color specification of claim 1 wherein designating the first portion and designating the second portion comprise:

designating the first portion of the region to be produced by the first colorant and a neutral colorant; and

designating the second portion of the region to be produced by the first colorant and the second colorant.

3. (Previously Presented) The method of mapping a color specification of claim 1 wherein designating the first portion and the second portion further comprise:

designating the first portion of the region to be produced by the second colorant and a neutral colorant; and

designating the second portion of the region to be produced by the first colorant, second colorant and the neutral colorant.

4. (Previously Presented) The method of mapping a color specification of

claim 1 wherein a projected region of color specification space for the similar hue is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar hue, the region being plotted as a continuous finite area and designating the first portion and the second portion comprise:

dividing the continuous finite area into a first sub-area and a second sub-area with a border, the border oriented so neutral axis values change in proportion to non-neutral axis values as one moves along the border.

5. (Previously Presented) The method of mapping a color specification of claim 1 wherein a projected region of color specification space for the similar hue is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar hue, the region being plotted as a continuous finite area and designating the first portion and the second portion comprise:

dividing the continuous finite area into a first sub-area bounded by points that specify black, white and a maximum of a darker of the first and second colorants and a second sub-area bounded by points that specify white and each of the first and second colorant.

6. (Previously Presented) The method of mapping a color specification of claim 1 wherein a projected region of color specification space for the similar hue is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar hue, the region being plot-able as a region triangle and designating the first portion and the second portion comprise:

dividing the region triangle into a first sub-triangle and a second sub-triangle with a dividing line extending from a white point in the color specification space to a point on a hypotenuse of the region triangle.

7. (Previously Presented) The method of mapping a color specification of claim 1 wherein the projected region of color specification space for the similar hue is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar

hue, therefore, the region being plotted as a region triangle and designating the first portion and the second portion comprise:

dividing the region triangle into a first sub-triangle and a second sub-triangle with a dividing line extending from a black point in the color specification space to an intermediate point on the non-neutral axis.

8. (Previously Presented) The method of mapping a color specification of claim 1 wherein a projected region of color specification space is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar hue, therefore, the region being plotted as a region triangle and designating the first portion and the second portion comprise:

dividing the region triangle into a first sub-triangle and a second sub-triangle with a border, the border oriented so neutral axis values change in inverse proportion to non-neutral axis values as one moves along the border.

9. (Previously Presented) The method of mapping a color specification of claim 1 wherein a projected region of color specification space for the similar hue is plot-able in relation to a neutral colorant axis indicative of a gamut of neutral colorant and a non-neutral axis, the non-neutral axis being indicative of a gamut of the similar hue, therefore, the region being plotted as a region triangle and designating the first portion and the second portion comprise:

dividing the region triangle into a first sub-triangle and a second sub-triangle with a dividing line extending from a black point in the color specification space to an intermediate point on the non-neutral axis.

10. (Original) The method of mapping a color specification of claim 1 wherein the region is degenerate and therefore, before the step of designating a first portion the method further comprises:

transforming the region so that the transformed region is non-degenerate and wherein the remaining steps are performed on the transformed region.

11. (Original) The method of mapping a color specification of claim 1 wherein points in color specification space corresponding to extreme amounts of the

first, second and third colorants are collinear, the method further comprising:

transforming the region so that the three transformed points are no longer collinear and define a region having a nonzero area.

12. (Original) The method of claim 1 further comprising:

placing maximal colorant points in the specification region at locations based on saturation and lightness characteristics of the colorants.

13. (Previously Presented) The method of claim 12 wherein placing maximal colorant points further comprises:

placing a darker and most saturated of the first and second colorants at a most saturated point in the color specification region; and

placing a lighter and less saturated of the first and second colorants at a point between the most saturated point and a white point.

14. (Previously Presented) The method of claim 10 wherein transforming the region comprises:

segmenting the region into a first segment, a second segment and a third segment, wherein the first segment is bounded by points that specify white, a relatively light intermediate neutral color and a maximum of a lighter of the first and second colorants, the second segment is bounded by points that specify the maximum of the lighter of the first and second colorants, the relatively light intermediate neutral color, a relatively dark intermediate neutral color and a maximum of the darker of the first and second colorant, and the third segment is bounded by points that specify the maximum of the darker colorant, the darker intermediate neutral color, and black;

warping the region so that the point that specifies the maximum of the lighter of the first and second colorants is positioned within the warped region to be a mapping for a color specification calling for a maximum of the similar hue, and the point that specifies a maximum of the darker of the first and second colorants is positioned within the warped region to be a mapping for a color specification calling for a point positioned between the black specification point and the point for the maximum of the similar hue.

15. (Previously Presented) A method of mapping a classic color

description to a redundant colorant color description comprising:

obtaining an input color specification defined in a classic color coordinate system; and

for each non-neutral colorant value in the classic color description:

determining an first amount of a primary colorant;

determining an first amount of a secondary colorant, said secondary colorant having substantially the same hue as the primary colorant; and,

arranging the first primary and secondary colorant amounts determined for each colorant value in the classic color description as a first redundant colorant color description containing non-neutral colorant values.

16. (Previously Presented) The method of claim 15 further comprising:

applying a redundant colorant under color removal process to the first redundant colorant color description containing non-neutral colorant values to generate a redundant color description including a neutral colorant value.

17. (Previously Presented) The method of claim 15, wherein determining the first amounts of primary and secondary colorants is carried out such that one of the first and second colorants is favored thereby conserving the other.

18. (Previously Presented) The method of claim 15, further comprising:

dividing into first and second regions an output color gamut achievable by employing the first and second colorants.

19. (Previously Presented) The method of claim 18, wherein the first amounts of primary and secondary colorants are determined such that renderings corresponding to the first region are achieved employing substantially none of the second colorant and renderings corresponding to the second region are achieved employing a blend of the first and second colorant.

20. (Previously Presented) The method of claim 15 further comprising:

for each non-neutral colorant value in the classic color description:

determining an second amount of a primary colorant;

determining an second amount of a secondary colorant, the secondary

colorant having substantially the same hue as the primary colorant, the first and second amounts being determined in a manner different than the first amounts; and,

arranging the second primary and secondary colorant amounts determined for each colorant value in the classic color description, as a second redundant colorant color description containing non-neutral colorant values; and

blending the first redundant colorant color description and the second redundant color description to generate a blended redundant colorant color description.

21. (Previously Presented) The method of claim 20 further comprising:

applying a redundant colorant under color removal process to the blended redundant colorant color description to generate a redundant color description including a neutral colorant value.

22. (Original) An image processing system operative to map a color specification to output colorant amounts where the output colorants include two colorants of similar hue, the image processing system comprising:

a first colorant splitter operative to receive the color specification and map the color specification to similar hue output colorant values.

23. (Original) The image processing system of claim 22 wherein the first colorant splitter is included in a first non-neutral colorant determiner, the first non neutral colorant determiner comprising:

a first plurality of colorant splitters, each colorant splitter operative to receive a subset of values from an input pixel and generate a subset of output pixel values, the subset of output pixel values including two colorant values for two colorants of similar hue, the output of each of the plurality of colorant splitters being combined to form a first intermediate pixel.

24. (Original) The image processing system of claim 23 further comprising:

an undercolor remover operative to perform undercolor removal on the intermediate pixel to generate an output pixel that includes a neutral colorant value.

25. (Original) The image processor of claim 23 further comprising:

a second non-neutral colorant determiner operative to map the input pixel

to an output pixel in a manner different than the first non-neutral colorant determiner, the second non-neutral colorant determiner comprising a second plurality of colorant splitters, each colorant splitter operative to receive a subset of values from an input pixel and generate a subset of output pixel values, the subset of output pixel values including two colorant values for two colorants of similar hue, the output of each of the plurality of colorant splitters being combined to form a second intermediate pixel;

a blender operative to receive the input pixel and first and second intermediate pixels, and to perform a weighted blend of the first and second intermediate pixels based on colorant values of the input pixel to generate a blended output pixel; and

an undercolor remover operative to receive the blended output pixel and perform undercolor removal on the blended output pixel to generate an output pixel that includes a neutral colorant value.

26. (Original) The image processing system of claim 22 further comprising:

a buffer operative to accumulate output pixels to generate an output image; and

an output device operative to receive the image.

27. (Original) The image processing system of claim 22 wherein the output device comprises:

a xerographic printer.

28. (Original) The image processing system of claim 22 wherein the output device comprises:

an inkjet printer.